

## CLAIMS

We claim:

1. A method of avoiding health problems in an individual at risk thereof due to excess body weight and/or an excess of body fat, comprising administering to the individual a sufficient amount of dietary calcium to induce a metabolic change as compared to suboptimal amounts of calcium.
2. The method of claim 1, wherein the method induces weight loss and/or prevents weight gain.
3. The method of claim 1, wherein the health problem is selected from the group consisting of one or more of coronary artery disease, stroke, and diabetes.
4. The method of claim 1, wherein the calcium is administered daily over a period of at least about six weeks, in an amount of at least about 1000 mg/day of dietary calcium.
5. The method of claim 1, wherein the health problem is selected from the group consisting of one or more of osteoarthritis, ligament injuries, perineal dermatitis, diabetes mellitus, cardiomyopathy, and urologic syndrome.
6. The method of claim 1, wherein the individual is a human.
7. A method of reducing risk of coronary artery disease, stroke, osteoarthritis, ligament injuries, perineal dermatitis, diabetes mellitus, cardiomyopathy, and/or urologic syndrome in an individual at risk thereof, comprising administering to the individual at least about 57 portions per month of dairy products.
8. The method of claim 8, wherein the dietary calcium is administered daily.
9. The method of claim 1, wherein the individual is a non-human mammal.
10. The method of claim 1, comprising increasing the dietary calcium consumption of the individual and maintaining the increased dietary calcium over a period sufficient to decrease intracellular calcium concentrations in adipocytes, stimulate lipolysis, inhibit lipogenesis, increase expression of white adipose tissue uncoupling protein 2 (UCP2), reduce serum insulin levels, increase thermogenesis, and/or decrease levels of calcitrophic hormones.

11. A method of reducing risk of health problems in an individual comprising administering a compound effective to decrease intracellular calcium concentrations in adipocytes, stimulate lipolysis, inhibit lipogenesis, increase expression of white adipose tissue uncoupling protein 2 (UCP2), reduce serum insulin levels, increase thermogenesis, and/or decrease levels of calcitrophic hormones.
12. A method of reducing risk of diabetes in an individual at risk comprising administering to the individual a sufficient amount of dietary calcium to reduce serum insulin levels, the amount being at least about 1000 mg/day.
13. A method of reducing risk of diabetes in an individual at risk comprising administering to the individual a sufficient amount of dairy products to reduce serum insulin levels, the amount being at least about 57 portions per month.
14. A method of reducing risk of coronary artery diseases, stroke, and/or diabetes in an individual at risk thereof, comprising increasing the dietary calcium consumption of the individual and maintaining the increased dietary calcium over a period sufficient to decrease intracellular calcium concentrations in adipocytes, stimulate lipolysis, inhibit lipogenesis, increase expression of white adipose tissue uncoupling protein 2 (UCP2), reduce serum insulin levels, increase thermogenesis, and/or decrease levels of calcitrophic hormones.
15. The method of claim 14, comprising reducing serum insulin levels.